United States Department of Agriculture | Forest Service | Northeastern Area State & Private Forestry | 180 Canfield Street Morgantown, WV 26505

Reply To: 3460

Date: November 9, 1992

Mr. Donald Campbell
Harper's Ferry National Historical Park
USDA National Park Service
P.O. Box 65
Harper's Ferry, WV 25425

Dear Mr. Campbell:

On October 1, 1992, USDA Forest Service personnel conducted a gypsy moth egg mass survey at Harper's Ferry National Historical Park. The purpose of the survey was to determine population densities and to assess the need for treatment in 1993.

The results ~~are~~ of the survey are presented in Tables 1-4. The survey plot locations are shown in Figure 1. Egg mass densities ranged from 0-2811 and averaged 774 egg masses per acre in the Maryland Heights area and ranged from 0-981 and averaged 252 egg masses per acre in the Loudoun Heights area. These populations are sufficient to cause widespread areas of moderate to heavy defoliation (31-100 percent) on Maryland Heights and scattered areas of moderate defoliation (31-60 percent) on Loudoun Heights. In order to prevent this defoliation and reduce gypsy moth populations, we recommend treating Maryland Heights with one or two applications of Bacillus thuringiensis (B.t.) applied at the rate of 20-30 BIU's per acre and treating Loudoun Heights with one application of B.t applied at the rate of 20-30 BIU's per acre.

Egg mass densities on Short Mountain and areas near Bolivar average 14 and 0 egg masses per acre, respectively. No noticeable defoliation is expected in these areas so no treatment is recommended in 1993.

I hope this information will be useful to you. Please contact me at (304) 285-1541 if you have any questions or require further information.

Sincerely,

Rodney L. Whiteman

RODNEY L. WHITEMAN
Forestry Technician
Forest Health Technician

Enclosures

cc: AO
Jim Sherald
Jan Hacker
Robert Tichenor
Bill Hebb
Betsie Handley

RLW/ct

Table 1. -- Gypsy Moth Egg Mass Survey Results at Harper's Ferry National Park, Areas near Bolivar October 1, 1992

Plot Number	Number EM/Acre
1	0
2	0
3	0

Table 2. -- Gypsy Moth Egg Mass Survey Results at Harper's Ferry National Park, Maryland Heights Area October 1, 1992

Plot Number	Number EM/Acre
4	35
5	282
6	323
7	76
8	200
9	960
10	1,351
11	2,461
12	2,667
13	241
14	117
15	97
16	0
17	56
18	981
19	549
20	323
21	35
22	35
23	0
24	56
25	35
26	529
27	1,618
28	1,988
29	1,536
30	1,947
31	796
32	2,811
33	2,132
34	0
35	529

Range = 0-2811 EM/Acre
Average = 774 EM/Acre

Table 3. -- Gypsy Moth Egg Mass Survey Results at Harper's Ferry National Park, Loudoun Heights Area October 1, 1992

Plot Number	Number EM/Acre
36	0
37	0
38	0
39	0
40	261
41	302
42	446
43	981
44	693
45	590
46	446
47	179
48	138
49	0
50	56
51	549
52	117
53	159
54	0
55	117

Range = 0-981 EM/Acre
Average = 252 EM/Acre

Table 4 -- Gypsy Moth Egg Mass Survey Results at Harper's Ferry National Park, Short Mountain Area October 1, 1992

Plot Number	Number EM/Acre
56	0
57	0
58	0
59	0
60	0
61	0
62	35
63	0
64	0
65	200
66	56
67	0
68	0
69	0
70	0
71	0
72	0
73	0
74	0
75	0
76	0

Range = 0-200 EM/Acre
Average = 14 EM/Acre

Figure 1. -- Gypsy moth egg mass survey plot locations at Harpers Ferry National Historical Park, October 1, 1992